

## Biodentine applicatins in endodontics: a review

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Biodentine has frequently been acknowledged in the literature as a promising material and serves as an essential representative of tricalcium silicate-based cement used in dentistry. It was introduced as 'dentine replacement' or 'dentine repair' material. Biodentine has many applications, such as dentine replacement material in restorative dentistry, endodontic repair, and pulp capping. The material is formulated using the MTA-based cement technology and improving some properties of these types of cement, such as physical qualities and handling. Biodentine has high biocompatibility and bioactivity, with enhanced properties, such as a quick setting time, homogeneity, perfect sealing ability, high compressive strength, and regenerative property. Literature sources used to prepare these articles are gathered through several databases using the keyword that matches with the topic of the study. The limits were imposed on the year of publication, and only articles in English were considered. The conducted literature study found that Biodentine is a popular tricalcium silicate material and has an extensive range of applications in endodontic procedures such as pulp capping, pulpotomy, apexification, root perforation repair, surgical endodontic and regenerative endodontic treatment. Numerous studies are generally in favour of this material in terms of its advantages. Biodentine promises clinical dental procedures as biocompatible, quick setting time, excellent sealing ability, and regenerative property.

**Keywords:** Tricalcium disilicate, pulp capping, apexification, regenerative endodontic, dentine replacement.